

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of this Study

The purpose of this study is to explore whether having involvement in the design process of the BSC will help managers utilize both common and unique measures in their performance evaluations using the BSC. Prior research (Lipe and Salterio, 2000) found that managers based their performance evaluations entirely on common measures. This fact defeats the whole purpose of using BSC in performance evaluations. There are two types of measures in the BSC, namely common and unique measures. Common measures are used across business units of an organization, whereas unique measures are specific to the business strategies of each business unit. A successful use of BSC occurs when managers use both common and unique measures to evaluate their subordinates. Kaplan and Norton (1996), creators of the BSC, emphasize that senior managers must be totally engaged in the development process of the BSC to ensure success in implementing and using the BSC. However, no prior research that explores performance evaluations of managers using the BSC has ever involved participants in the development stage of the BSC. Thus, I focus on the involvement of managers in the development process of the BSC in this paper.

I conduct two experiments to determine how involvement in the design process of the BSC affects performance evaluations of managers. Experiment I is used to answer the first research question; i.e. ***Can involvement in the design process of the BSC reduce common measure bias?*** Participants are randomly divided into two treatments: *no-involvement* versus *involvement* conditions. Participants in the *no-involvement* condition receive the exact same case instrument as those in Lipe and Salterio (2000). Their task is only to read the case about WCS Inc. and use the given BSC to evaluate performance of managers of the two business units and recommend one manager for job promotion. Participants in the *involvement* condition are involved in the development process of the BSC. They have to rate the unique

measures according to how they think the measures are appropriate and suitable for each business unit. Then, they are given the same BSC as in the *no-involvement* condition. They have to evaluate two managers from two different divisions and recommend one manager for promotion. Results show that when managers are involved in the development process of the BSC, they rely on both common and unique measures in their performance evaluations. This means that involvement does reduce common measure bias. I explain this result using the “commitment effect”. When participants are involved in the development process of the BSC, this involvement leads to having commitment to the use of BSC measures. Thus, when they evaluate subordinates, participants tend to use both common and unique measures.

Experiment II is used to answer the second research question; i.e. ***Do different levels of managers’ choice received affect performance evaluation of these managers using the BSC?*** For this experiment, all participants are equally involved in the development process of the BSC. However, they differ in the levels of their chosen choices being received in the final version of the BSC. Participants are randomly divided into three treatments: *choice-all-received*, *choice-half-received*, and *choice-not-received* conditions. All participants are given two sets of unique measures (Set A and Set B) to choose from, in accordance to how they think each set is more appropriate for the business strategies of each division. Under the *choice-all-received* condition, participants receive the chosen choices. For example, if they choose Set A, they are given Set A as the final BSC version. Under the *choice-half-received* condition, participants receive only half of their chosen choices; i.e. they are given a mixture of Set A and Set B unique measures. Under the *choice-not-received* condition, participants do not receive their chosen choices. For example, if they choose Set A, they are given Set B as the final BSC version, instead. Then, they have to evaluate managers from the two business divisions using the final version of the BSC and recommend one manager for job promotion. Results show that different levels of choice received affect performance evaluations of managers. When participants receive all their chosen choices, they rely on both common and unique measures in their performance evaluations. However, when they receive only half or do not receive their chosen choices at all, they rely more on common measures. I

explain this result using the “frustration effect”; i.e. when participants do not receive their chosen choices, they become dissatisfied with the outcome. This dissatisfaction causes negative outcome upon their performance evaluations. However, I found that the “frustration effect” in this research is not as strong as that found by Baldwin et al. (1991). This is evident by the fact that the difference in performance evaluation of the *choice-half-received* condition is not statistically significantly different from the difference in the *choice-not-received* condition. This research is based on a case study of a hypothetical firm. Thus, whether participants receive their chosen choices has no real impact on their well-being or their everyday lives. However, Baldwin et al. (1991) use real university trainee and real training program. Thus, when participants do not receive their chosen choices, this has a real impact to their career and personal lives. So, the “frustration effect” is stronger in Baldwin et al. (1991).

In conclusion, the results of the two experiments boils down to an important fact that when managers are involved in the development process of the BSC, they tend to rely on both common and unique measures in their performance evaluations, regardless of whether they receive all or only some of their chosen choices. However, in an extreme case when managers are involved in the development of the BSC but receive none of their chosen choices, they tend to rely more on common measures in their performance evaluations. This finding is useful to firms, since the whole purpose of using the BSC in performance evaluations is to let managers use both common and unique measures in evaluating their subordinates, since both measures are important to the success of each business unit and to the firm. So, the finding of this research provides a practical solution to firms that use the BSC in performance evaluations.

5.2 Research Implications and Contributions

This study provides several implications and contributions to the business and academic communities. Kaplan and Norton (1996) state that “the BSC translates an organization’s mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system”. However, the BSC will not be useful to an organization if the management

does not utilize both common and unique measures into their performance evaluations. Prior research by Lipe and Salterio (2000) found that managers tend to use common measures and ignore unique measures in their performance evaluations. This undermines the usefulness of the BSC, since common measures are lagging measures which managers have no control of, while unique measures are leading measures which are drivers of organization's future performance. This research uses "involvement" of managers in developing the BSC to debias the excessive use of common measures in manager's performance evaluations. Results show that involvement causes managers to use both common and unique measures in their performance evaluations. Thus, involvement helps improve the effectiveness of using BSC in evaluating performance of a business unit. So, for organizations that already use the BSC but encounter problem with common measure bias, the result of this research will help them solve the bias problem. This will help organizations get the full benefit from adopting the BSC. Besides, having managers involved in the development process of the BSC forces them to understand the BSC measures before they actually use them to evaluate their subordinates.

The results of this paper is practical to firms, since having managers involved in the development of the BSC is highly suggested by Kaplan and Norton (1996). They suggest that the BSC should be developed by a group of organization's executives as a team project. This will create joint accountability for the management, which leads to consensus and teamwork. Teamwork is very important for the success of an organization, since when each management contributes different skills, knowhow, individual ideas, and opinion to the group, it often enables the organization to work towards reaching their goals. Teamwork goes beyond individual's accomplishments, since instead of competing internally, management have to closely collaborate and contribute to reach the organization's goals.

Although I use M.B.A. students as participants in this research, instead of real managers, I believe that the results of this research are applicable to managers in real business organizations. This is because the M.B.A. participants, who are subjects of this research, have real working experience in organizations. They worked in various fields, namely accounting, finance and banking, marketing, general management, and engineering. Most of them have subordinates and many of them

have real experience being evaluated or have used the BSC to evaluate their subordinates. Besides, participants have medium level of knowledge about the BSC. Thus, their background is very similar to real managers in real business organizations. So, the results of this research that found that managers use both common and unique measures in their performance evaluations when they are involved in the development process of the BSC should be applicable to real business organizations.

This research adds to prior research on debiasing performance evaluations of managers using the BSC. Prior research by Libby et al. (2004), Roberts et al. (2004), and Dilla and Steinbart (2005) uses accountability and third-party assurance report, disaggregated BSC measures, and knowledgeable subjects to successfully debias performance evaluations of managers. The results of this research add another way to successfully debias performance evaluations of managers using the BSC; i.e. using involvement in the development process of the BSC. This is useful to firms, since finding as many ways as possible to debias the BSC evaluations will help firms choose the methods that are the most appropriate for them to successfully implement the BSC.

This research also adds to psychology literature on involvement. The results of this study suggest that psychology-based method of debiasing manager's decision making (i.e. the use of involvement) may be more relevant than business-based method in explaining and improving manager's performance evaluations. This research provides evidence that involvement leads managers to use both common and unique measures. However, managers are affected by the different levels of their choice of BSC measures being received; i.e. they tend to use both common and unique measures when they are given all or some of their chosen choices, but they tend to ignore unique measures when they receive none of their chosen choices. The results of this research are consistent with psychology literature that found that involvement leads to commitment in most cases (Crosby and Taylor, 1983). But, managers may also be affected by "frustration effect" (Folger et al., 1979) when they are not given all their chosen choices, which is considered an extreme case. When managers are frustrated, they tend to emphasize on common measures in their performance evaluations.

5.3 Limitations to this Study and Future Research

My results are subject to some limitations. First, I was only able to use M.B.A. students as participants in this research, although prior research (Lipe and Salterio, 2000; Libby et al., 2004; Banker et al., 2004; Roberts et al., 2004) also use M.B.A. students as participants. M.B.A. students are novices to the use of the BSC, since majority of them do not have a real experience using the BSC to evaluate their subordinates and/or being evaluated by the BSC. Thus, the results of this research may be different have I had a chance to use real managers, who have experience with using BSC to evaluate their subordinates, as participants in this research. So, future research should use real managers to perform the experiment. This would make the research special, since the real impact of performance evaluations by managers can be observed and analyzed, rather than using M.B.A. and undergraduate students as representatives of real managers.

Second, the involvement process in this research is limited to letting participants choose the appropriate BSC measures (in Experiment I) or choosing between two sets of BSC measures (in Experiment II). Thus, the level of involvement may not be as strong as in the real business setting, whereby managers sit in a meeting room to brainstorm and argue over the BSC measures, in order to get the best measures which are really a consensus of the management. So, future research can explore the conditions whereby participants are more involved in the development process of the BSC, e.g. they are involved in the brainstorming process of each BSC measure.

Lastly, participants in this research do not have personal experience with the two managers being evaluated. The results of this research may be different have they personally knew the subordinates being evaluated. Thus, future research may explore the situation whereby participants personally knew the subordinates being evaluated. This would also make the experiment more realistic.